

CASE OF
SEVERE CONCUSSION FROM A FALL,
WITH
SUBSEQUENT EXTRAVASATION
ON THE
SPINAL CORD.

DEATH IN THIRTEEN MONTHS AFTER THE INJURY.

BY
ARCH^{d. 11. 1848}B. HALL, M.D., L.R.C.S.E.,
Physician to the Montreal Gen. Hospital; Consulting Physician
to the University Lying-in Hospital, &c.

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MDCCCXLVIII.

THE HISTORY OF THE

ROYAL NAVY

OF GREAT BRITAIN

AND IRELAND

CASE OF
SEVERE CONCUSSION FROM A FALL,
WITH
REMARKS, &c.

On the 17th May, 1847, about 11, p.m., while engaged in matters of importance in my own house, with Dr. Arnoldi, junior, I was hastily summoned to visit Mr. W. F., of Hamilton, C. W., who had, a few minutes previously, fallen on a stone-paved yard, from a gallery about fourteen feet in height, and was then stated to be insensible. He had lain in the yard for several minutes, until his non-appearance in the house, and the sound of heavy breathing, attracted attention to the circumstance. In consequence of the contiguity of Mr. Isaacson's house, in which the accident occurred, Dr. Arnoldi accompanied me, and in the kitchen, into which he had been brought, we found Mr. F. laboring under every symptom of concussion, and surrounded by several gentlemen, occupied in endeavours to remove his clothes. We had him immediately carried to a bed in an upper room, and the further process of removing his clothes was undertaken by Dr. Arnoldi, while I returned home for the necessary materials to dress any wounds which might have been caused by the fall. In the meanwhile, the symptoms of the concussion gradually diminishing, *he voluntarily moved his legs*; and, by the time that a trifling scalp wound, which was situated on the left parietal protuberance, had been dressed, his consciousness had so far recovered as to enable him to speak. At this period, he complained of no particular pain; and, after a most rigid and careful examination, not the slightest trace of fracture was anywhere detectable, nor was there

any other lesion apparent save the scalp wound already noticed. With injunctions as to regimen, we left him for a second examination on the ensuing morning. Mr. F. was an exceedingly well developed, healthy young man, a merchant, of regular habits, and aged about 23. Having transacted his business in the city, it was his intention to have returned to Hamilton the following morning. The accident occurred while crossing a gallery, the rails of which had been carried away by a heavy fall of snow a short time previously, a circumstance of which he had been informed.

May 18. Patient seen at 6, a.m. Had slept a little during the night. The following symptoms now presented themselves : Pulse 90, full and soft ; conscious ; recollects nothing of the occurrence of the preceding night ; general soreness of the whole body, with inability to move both inferior extremities ; power over superior perfect ; respiration normal ; no headache ; titillation of soles of the feet causes retraction of the legs, from reflex action ; tenderness of the spine, between last cervical and fifth dorsal vertebræ ; scalp wound gives pain, and scalp generally tender ; difficulty in moving left hand and fingers. On examining arm, found contusion on left olecranon, along the ulna, and back of wrist joint and hand. In these latter places, incipient ecchymosis. Evidence of contusion, manifesting itself by tenderness, and ecchymosis on sacrum and left ilium at the posterior third of its crest. A renewed most careful examination disclosed no evidence of fracture, either of the vertebral column or extremities. An evaporating lotion was prescribed for the head and arm ; leeches to the superior dorsal vertebræ ; a common cathartic powder to be taken immediately, and as the paraplegia seemed dependant on spinal extravasation, I placed him forthwith on small doses of calomel and tartar emetic, alternating the medicines every two hours, for the double purpose of obviating arterial excitement, which there was the strongest grounds for apprehending, and inducing absorption. At 10, a. m., pulse increased in rapidity, but not altered in its character ; slight fever ;

thirst ; no operation from powder ; marked priapism, with great desire to make water, but inability to pass it. Paralytic condition of the legs more complete. The catheter was introduced, causing no pain or irritation, and relieved him of about 3x of water, of normal appearance. An enema was ordered, to assist the cathartic. 1, p.m., Mr. F. was seen in consultation by Dr. MacDonnell, and I will quote the symptoms now present, as extracted from that gentleman's note book :

[" May 18, 1847. I was called into consultation by Dr. Hall, on the case of W. F., Esq, aged 23, of strong healthy constitution, and well developed muscular system, who had fallen from a height of about fourteen feet. He had lain in the situation in which he had fallen for about three or four minutes, when he was discovered, in a senseless condition. When Dr. Hall saw him, he presented the usual symptoms of concussion, and on examination, a slight wound was discovered on the scalp, the edges of which were readily brought together. There were also noticed on various parts of his body, slight contusions. Dr. Hall treated him whilst in this state in the usual manner, and next morning he discovered that there was some tenderness corresponding to the junction of the cervical with the dorsal vertebræ, but in no situation was there the least positive evidence, either of fracture or dislocation, although there was complete loss of power and sensation of the lower extremities, from the hips downwards, paralysis of the bladder, and involuntary escape of fœces. The penis was in a state of priapism, but there were no seminal emissions, nor tympanitis. The power of motion and sensation were perfect in the upper part of the body, and there was not the least paralysis of any of the muscles supplied by the cerebral nerves ; his intellect was unimpaired. The introduction of the catheter gave him no pain. On the feet being pricked or tickled, reflex motion of the limb was induced."]

The enema had operated twice ; patient sensible of

the operation, but expressed himself as unable to control it. The tenderness of the spine not diminishing, the leeches were re-applied, bleeding freely; the other treatment persevered in. The diagnosis of the case was, after a careful consideration of all the circumstances, defined as follows: Concussion of the brain and spinal cord, with subsequent extravasation between the last cervical and 6th dorsal vertebræ, with the possibility of an osseous lesion in the same region, of which, however, there was no positive proof. We were not insensible to the consideration, that laceration of the spinal cord to some slight extent might also have taken place. Regarding the case as one of great moment and danger, we advised that his friends at Hamilton should be notified of his situation without delay. Mr. F. was visited at 3, 8, and 11, p.m., at which latter time it was again requisite to have recourse to catheterism.

May 19. Patient seen repeatedly throughout the day. Symptoms without any alleviation. Fever increased, and pulse 110, small, yet still soft. A large blister was applied to the upper dorsal vertebræ, and an anodyne pill of hyoscyamus was prescribed at bedtime.

May 22. Superadded to the symptoms already detailed, there is now another—severe pain at the neck of the bladder, induced by the introduction of the catheter, which requires to be used every three or four hours. To obviate the frequent recourse to the instrument, the attempt was made to let it remain after introduction, but the pain and irritation excited proved so intense, as to demand its prompt withdrawal. The necessity for its so frequent introduction, seemed to be due to the irritability of the bladder, excited by the presence of even a small quantity of urine in it. In consequence of the insomnia, and as no head symptoms presented themselves, the anodyne was changed, and composed of the acetum opii as its chief ingredient. The calomel and tartar emetic were still persevered with.

May 25.—At the request of his brother, who arrived from Hamilton, Dr. Nelson saw the patient this day, in consultation with Dr. MacDonnell and myself. He

was again most carefully examined, but with the same negative results, as regards fracture, as obtained on previous occasions. The views entertained of the case were fully acquiesced in by this gentleman, and in the plan of treatment pursued he entirely concurred.

May 26. Early this morning, Mr. F. was removed to the residence of an intimate friend, the fatigue of which he bore well. The general train of symptoms still continued unaltered. The constitutional effects of the mercury having exhibited themselves in ptyalism, this medicine was discontinued, as was also the tartar emetic, and with the view of still promoting absorption of the supposed extravasation, he was placed on the iodide of potassium in five grain doses, repeated every four hours during the day.

June 1. From the 26th to the present date, there was little alteration in the case. Symptoms of myelitis began now to manifest themselves, indicated by renewed tenderness in the region of 2d and 3d dorsal vertebræ; flying pains extending down the arms, and to the head; the hoop sensation round the chest, &c. These were combated by recourse to the tartrate of antimony, conjoined with sedatives, and free counter-irritation over the painful vertebral region. The pain of his head, which he described as commencing at the occiput and darting rapidly to the frontal region, was of the most agonizing character. Concomitant with this alteration of symptoms, the urine began to alter in its quality; mucus in considerable abundance was mixed with it, as withdrawn by the catheter; and although he did not complain much when pressure was exerted in the suprapubic region, yet there could be no question of the existence of a slight cystitic affection. Catheterism now proved frequently exceeding painful, and not unusually a work of considerable difficulty, in consequence of the violent spasmodic action of the sphincter. I will pass over the reports of several days, until that of

June 8., when I find the following train of symptoms. Patient worse, and apparently sinking. Pulse 136, small and weak; frequent attacks of darting pains

through the head, commencing, as before, at the occiput ; difficulty of breathing, with frequent sighing ; sensation of tightness across the chest, with darting pains through that region ; occasional pains in both shoulders ; shooting pains down his legs ; had scarcely slept any during the night, although he had taken three doses of the anodyne (each dose contained *aceti opii m.xv*) ; is restless, anxious, and fretful ; had several involuntary motions during the night, the effect of a cathartic pill, followed by an enema. In consultation with Dr. MacDonnell and Dr. Nelson this evening, it was decided to put him on stimulants, and sherry wine was prescribed. This was done with the sole view of sustaining him until his brother's arrival, who was notified of the patient's state by telegraph. At this time we believed him to be sinking rapidly. The iodide of potassium was discontinued, and the blistered surface of the back having healed, tartar emetic ointment was ordered to be rubbed freely in.

June 9. Since the exhibition of the wine, the pulse has fallen in frequency, and improved slightly in volume. The pains shooting down the arms have ceased, but those of the head continue. He now suffers acute pain in the knees, on the slightest attempt at flexing the legs. It is necessary to notice that, during this period of his illness, stimulating applications had been frequently and freely applied to his legs, such as mustard frictions, hand-rubbing, &c. &c., and enemata had been employed as frequently as circumstances demanded. The exhibition of ordinary laxative medicines failed in the desired object, apparently in consequence of the paralyzed condition of the muscular coat of the intestinal canal, and the operation of the enemata was attended with the same signs of involuntary action as before.

June 13. Symptoms still progressing more favourably ; Mr. F. was placed on iodide of potassium again and strychnine—the medicines alternated every two hours. From this period until the beginning of July, nothing of any importance occurred worthy of special notice. The counter-irritation to the back was still kept up, and the medicines just noticed steadily persevered in. The paraplegic symptoms continued unaltered. Muscular

twitches were complained of in the legs, but especially the right one, at the knee—the slightest attempts at flexing either inducing them. The respiratory movements became of a more normal character. Necessity compelled, as before, a frequent recourse to the catheter, never less than three, but most frequently four times a day. The introduction of the instrument was almost always attended with the same spasmodic action of the sphincter vesicæ, experience demonstrating that unless the operation was rapidly performed, the spasms set in severely, causing excessive pain, and the maintainance of the instrument in situ was yet found a matter of impossibility, in consequence of the excessive irritation which it engendered. Pus was now constantly seen in the urine, and followed the last drops of it when withdrawn. The urine was of a highly offensive ammoniacal odour, and crystals of triple phosphate were detected in it by the microscope. Priapism still continued a prominent symptom. On the 16th June, recourse was had to galvanism, which was continued for several days, without any other marked effect than the induction of rapid muscular twitches, causing excessive pain. The use of this agent was therefore intermitted. The appetite appeared to be but very slightly affected. The diet permitted was generous, as there appeared to be nothing of any moment contra-indicating it; but he, nevertheless, emaciated. A singular symptom had gradually developed itself, an inability to grasp or seize between the thumb, and index and middle fingers. This was undeniably due to defective innervation of the median and radial nerves; and proved a symptom still further serving as a guide to the proper location of the seat of actual injury at the time of the accident. Whether a consequence of the exhibition of the iodide of potassium or the strychnine, about the 30th June the secretion of urine became abundant; and, concomitant with this alteration of secreting action, there was a diminished excretion of mucus and pus globules in it: the ammoniacal odour became also less.

I consider it entirely unnecessary to follow the case steadily from day to day through the long period of time

during which he was under my care. It will have been observed that I have, in the reports already given, followed this rule, noting only those periods when new symptoms developed themselves. I pass then on to the middle of July, when we noticed for the first time a slowly but gradually commencing contraction of the flexor muscles of the leg. Notwithstanding this condition of the muscular system of the extremities, it was still deemed advisable to have recourse to galvanism, oily inunctions, and frequent extensions during the day. The slightest attempt at extension caused acute pain. Bed sores in the sacral region had some time previously to this commenced, requiring the greatest care and attention, by pads, the application of nitrate of silver in solution, &c. &c. to alleviate.

Oedema of the feet and ankles now commenced, but his pulse, nevertheless maintained its regularity and its fullness; his appetite continued unimpaired; and although he continued the iodine, we found it necessary occasionally to intermit the strychnine, and place him during those periods on a mineral tonic, which was either a mild preparation of iron, the sulphate of zinc, or oxide of silver. About the end of July, feeling himself equal to the exertion, although there was little remission in the more prominent symptoms, we raised him to a semi-recumbent position in his bed; and about the middle of August we got him out of bed and comfortably seated in an arm chair, in which he remained nearly a whole morning. The tonic flexion of the legs, however, had by this time increased considerably; and the pain caused by a similar change of position, was such as to prevent its future repetition. At this time the irritability of the bladder had apparently so far diminished, as to permit the retention of the catheter during the night. The desire to pass water was always followed by excessive pain, which appeared to be a consequence of a violent muscular effort of the bladder itself, and was quite involuntary. Occasionally the propulsive effort was effectual in evacuating a portion of the contents of the bladder, even when the catheter was not introduced, and it remained as long, apparently, as any quantity of urine

remained in the viscus. Mr. F. continued in this state without any alteration of symptoms, and under a treatment varied according to circumstances, but ever based on the indications, until the 23d of September, when I accompanied him to Hamilton, and placed him under the care of Dr. John Mackelcan of that city.

November 2. Received from Dr. M.K., a letter containing the following report of the case to that period:—

EXTRACT.

Hamilton, Oct. 29, 1847.

MY DEAR SIR,—I have delayed longer than I intended to give you an account of Mr. F.'s progress since you left him here. Two or three days after he arrived here, he was troubled with frequent nausea and vomiting, and the enemata produced little or no effect, a small quantity of very hardened feces only passing. On examination per anum, I found the rectum filled with a mass as large as a cricket ball, and on removing that, with some difficulty, two similar masses successively descended into the rectum, which were also removed, when the enemata passed into the colon without difficulty, and relieved the bowels efficiently. The sickness then ceased, and his health, which had been a good deal shaken by this state of things, gradually improved. He is now gaining strength, his pulse varying from 72 to 80; his urine more abundant and of better quality, but still passed only by spasmodic action of the bladder. Indeed, I believe the bladder never empties itself properly, and that the partial expulsion of the urine takes place only when the bladder is distended, by which it is stimulated to a violent effort, which expels as much of the urine as gives temporary relief, but that, partaking of the paralysis, it is unable to accomplish a regular and natural contraction. I have passed the catheter several times immediately after four or five ounces have been expelled by a spasm, and have drawn off eight or ten more. His lower extremities are still as much contracted as ever, and he suffers a good deal of pain in the right one, particularly about the patella. There is no oedematous swelling of the feet, but I cannot perceive any material increase of the power of voluntary motion. I have contented myself with carefully regulating the bowels, giving the Spt. æther. nit. with hyoscyamus and strong camphor mixture, and at night the acet. opii., gradually diminishing the dose, as I think so much opium must be injurious to him, and calculated to prevent the return of nervous energy, unless the loss of that power depends upon mechanical injury of the spinal cord, when, of course, the use of opium could do neither good nor harm.

(Some remarks here follow, having reference to a water bed for Mr. F.)

I shall report to you any interesting features which may occur in Mr. F.'s case.—I am, &c.,

JOHN MACKELCAN.

Dr. Hall, Montreal.

Report of case of Mr. W. F., after his arrival in Hamilton, four months subsequent to his accident.

By J. MACKELCAN, M.D., Hamilton.

A few days after his arrival, affected with nausea and occasional vomiting, the nurse reported that the enemata, which had been exhibited twice a week, did not act efficiently; administered them then myself with a patent apparatus, instead of the common syringe which had been previously used; found great resistance to passage of enema, and slight effect from it. Examined abdomen externally, and felt hardened feces throughout whole course of colon; made then examination per rectum, and found it impacted with feces, which were removed by manual operation, after which copious evacuations were produced by enemata; the colon was thus thoroughly emptied, and the vomiting ceased. The appetite then returned, and the patient continued to improve in flesh and strength for three months; his pulse fell from about 90 to 72; his urine improved in quantity and quality, and the bladder acquired the power to expel its contents; the catheter has not been passed since the first month of residence here, and during that month only occasionally. The action of the bladder was, however, throughout peculiar; it was termed a "spasm" by the patient; it came on suddenly, and with scarcely any power of retaining its contents. During the three months above mentioned, the voluntary power in the left lower extremity improved, and sufficient was acquired on the right to lift the foot from the bed; the contraction of the lower extremities was also gradually yielding to gentle extension and friction. The general treatment during this period consisted of relieving the bowels by enemata on alternate days, and an occasional aloetic purgative, gradually diminishing the quantity of opiate which the patient had been accustomed to take when

his sufferings were greater ; he also took *spt. æther.* and *tinct. hyos.* in camphor mixture three times a day. Shortly before Christmas, 1847, unfavourable symptoms again appeared ; loss of appetite, nausea, and vomiting came on, with furred tongue, and were not relieved by medicines intended to improve the digestive organs. On again examining the abdomen carefully, a firm tumour was found occupying the right lumbar region, in front of the kidney of that side ; considering that it might again be impaction in the colon, which the enemata had not reached, more copious quantities of fluid were injected, but without effect upon the tumour and its position ; its feel, some tenderness on pressure, and the symptoms produced, led me to the suspicion that a renal calculus had formed of considerable size, and that the prognosis was decidedly unfavorable. The pulse strength declined, and he rapidly lost flesh, with little hope of benefit ; iodine frictions were used, and after a short time the tumour diminished, and was reduced to the feel and situation of a somewhat enlarged and indurated kidney.*

Bed sores now again made their appearance, and spread rapidly in the sacrum, the ischia, and left trochanter, with deep sloughing.

The nausea and vomiting ceased, but the appetite never returned to any extent, nor did the patient ever regain flesh. Finding that no expedient which could be adopted benefitted the bed sores, a water bed was obtained from New York, and then only the sloughing was arrested, and granulation commenced. The purulent discharge was very great, and a month before his death large quantities of pus mixed with blood, and of most offensive odour, passed per anum for days in succession, and the pulse which had for some time been rising in frequency until it reached 120, became jerking, and there were frequent profuse perspirations.

* The autopsy showing the kidney to be but moderately enlarged, and the calculi small ; of what nature was the greater part of the enlargement ? Could it have been urine detained in the tubes and cavities of the kidney, by the calculus, which just fitted the pelvis, and thus obstructed the water ?

During this period, also, the contraction of the lower extremities returned, and gradually became worse, until the left thigh lay along the side of the abdomen, and the right knee almost rested on the axilla, while the heel was drawn against the nates. The right limb was less contracted, but he suffered much pain in the groin of that side ; and during the whole of his illness he complained of much pain in the right sciatic nerve, greatly aggravated by laying on that side, and accompanied sometimes with severe pain in the right heel. *

His sufferings were so great during the last two months, that he could not be moved for several days together, and the accumulation of pus under him greatly aggravated the bed sore on the sacrum, and no doubt led to that state of the parts which was found after death.

The reflex action of the spinal marrow was at all times easily excited, and especially during the last four months ; the slightest movement of the bed-clothes producing painful twitching of the lower extremities.

He died June 6th, having sunk rapidly during the previous 24 hours.

Hamilton, June 20, 1848.

Mr. F. died on the 6th June, 1848, and, through the kindness of Dr. Craigie of Hamilton, I have been furnished with the following report of the post mortem examination, 26 hours after death :

* Soon after the patient's arrival in Hamilton, I suspected that a transverse fracture of the lower part of the sacrum had occurred at the time of the accident, and that the apex being pressed slightly inwards, especially towards the right side, it had united at a very obtuse angle. I considered this as of no other importance than as probably accounting for the constant pain in the course of the right sciatic nerve, as should the fracture be in the line of any of the anterior foramina of the sacrum, which was the part most likely to give way, the root of that nerve might be interfered with. Had such an occurrence taken place, of course nothing could have been done to replace the bone. The post mortem examination failed to illustrate the point, as the lower part of the sacrum was destroyed by caries commencing across the line of the 4th anterior foramina.

The spine being the original seat of injury, was first examined. The extensor muscles on each side of the spinal column were much wasted and in a state of fatty degeneration; the spinal canal was opened from the second dorsal vertebra to its sacral extremity; a considerable quantity of adipose matter was found between the theca vertebralis, and tendinous lining of the canal; the veins of the latter were turgid, and the theca presented no morbid alteration. On opening the theca, a quantity of slightly reddish serum escaped, and that part of the medulla spinalis, opposite the two last dorsal vertebræ appeared enlarged (quite filling the theca) and indurated, and its vascularity greater than any other portion. From thence downward (being that portion when the cord separates into bundles of nervous fibres), the bulk was much diminished, not nearly filling the theca, and the substance was flaccid. No morbid alteration was discoverable in the tendinous sheath of the canal, except the venous turgescence before mentioned, and no displacement or fracture of any of the vertebræ.

On opening the abdomen, the viscera generally were healthy, the intestines empty, and the ascending colon contracted. The right kidney exhibited disease; it was enlarged, surrounded with dense adipose substance, and, on being laid open, was found to be of a pale yellow colour, with scarcely any healthy structure remaining: its pelvis was of a dark colour, and filled with a calculus, and there were several smaller calculi in the infundibula. Pus was also found in these cavities. The contents of the pelvis were then removed: the bladder was much contracted, containing pus, and its mucous membrane of a dark leaden hue. The rectum was distended into the form of a pouch, the cellular substance around it much indurated and containing pus. The pubis having been removed, and the ligaments in front of the right sacro-iliac symphysis divided, the handle of a scalpel passed between the bones for half an inch without difficulty, and moderate force separated them, and their opposing surfaces were denuded of cartilage. On the left side the union was closer; but, after the division of the ligaments, it also was separated, but on the application of greater force than was used on the right side, and the cartilaginous covering of the surfaces was present.

A large bed sore occupied the region of the sacrum, the prominent parts of which were denuded, and its two lower sections, as well as the os coccygis, were destroyed by caries. The tuberosities of the ischia were also denuded by bed sores, and likewise the left trochanter major.

The body generally was much emaciated, and the lower extremities œdematous, particularly the right, and much contracted.

(Signed,) JOHN MACKELCAN, M.D.
WILLIAM McCARGOW, Surgeon.

Hamilton, June 7, 1848.

We were present at the examination of the body of Mr. W. F., and concur generally in the above report, with, however,

the following exceptions. We know nothing of "the original seat of injury." Injury of the spinal marrow was suspected, but so far as that was examined, none was found. The lower part of the spinal marrow and cauda equina are preserved, for the satisfaction of those interested. Time did not permit of the examination of the cervical portion of the spinal marrow and medulla oblongata.

We could perceive no difference between the two sacro-iliac sychondroses. The right was more easily torn open than the left, in consequence of the longer lever power, it having been first opened. Their surfaces, when exposed, appeared and felt exactly the same.

No mark of fracture, displacement, or injury of any of the bones of the pelvis could be detected, other than caries affecting the sacrum.

(Signed) W. G. DICKENSON.
W. CRAIGIE.

June 22. Received this day from Dr. Mackelcan, the kidney and lower part of the spinal cord of the deceased. The kidney was surrounded with a considerable quantity of fat, was larger, and its texture seemed more indurated, than natural. The pelvis contained a calculus of large size, and there were removed from it and the infundibula about twenty smaller ones. The calculi were examined, both microscopically by Dr. MacDonnell, and chemically by myself. They were found to be composed, exclusively, of triple phosphate, and in this respect the case affords no exception to the rule which seems to connect the phosphatic urinary deposits with spinal disease.

The part of the spinal cord received, extended from about the 10th dorsal vertebra downwards. It was slit open by Dr. MacDonnell, in the presence of Dr. Mount and myself, and was subsequently examined by Drs. Arnoldi, Nelson, Campbell, and Sutherland. It was ascertained to demonstrate unequivocal evidence of ramollissement for about one inch and a half downwards from its superior cut margin. How far above the 10th dorsal vertebra this ramollissement extended, it is impossible to say, in the absence of proof, but I have not the slightest doubt that, had the portions of the spinal cord, between the last cervical and sixth dorsal vertebrae, been examined in the same manner, a similar abnormal condition would have been detected there also; this having

been the seat of the original tenderness, and in which every symptom, at a very early period, indicated myelitis to have existed.

The existence of "adipose"* matter along and exterior to the theca, is not only an exceedingly anomalous deposit in such a situation, but naturally suggests the inquiry how far it might have been due to the suspected extravasated blood, absorption of the red particles having taken place, leaving the fibrine, which had subsequently changed into adipose tissue. And such a change would be in strict accordance with what has been observed with reference to fibrinous tissue in the contiguity of degenerated nervous structure. The fatty degeneration of muscular tissue (observed also in this particular case,) supplied by, and in the neighbourhood of, nerves, whose structure has become impaired by disease, has been frequently noticed, and the adipose matter deposited exteriorly to the theca would indicate the operation of a similar modifying agency on the fibrine deposited in the neighbourhood of the diseased cord.

One thing now must strike forcibly even the most careless reader—the complete verification of the diagnosis, made nearly thirteen months previously;—and in concluding this part of my subject, I cannot forbear expressing to Drs. Craigie and Dickenson my grateful acknowledgments for the trouble which they incurred on my account, in being present at the post mortem examination of the deceased, and in superintending its various stages to see that due and impartial justice was rendered to an absent brother practitioner.

And here I would most cheerfully have terminated my remarks, had not circumstances originated out of the case which have forced upon me an imperious but most unpleasant duty. Linked together in the pursuit of similar objects, practitioners of medicine constitute a brotherhood, between every member of which there should exist no

* *Erratum*.—For "adipose," read "a considerable quantity of adipose." The omission of the additional words necessary to complete the quotation from the *post mortem* report, which it was intended to be, was accidental, and was not detected until the Journal had been put to press.

rivalry, but of the most honourable kind ; whose errors, if committed, should be viewed by its members in the most charitable light ; and the reputation of each individual most carefully cherished. The assassin's weapon can scarcely produce a more dangerous wound than the envenomed tongue of the detractor, which may effect its purpose in many different ways. The physician lives upon his reputation ; strike at that reputation, and you rob him of that—his good name—" which makes him poor indeed." The personal advancement of the detractor, as the cherished object of pursuit, may be successfully attained ; but that success cannot be permanent which is achieved by such unholy means ; it will soon flag and fail, because unsustained by the only sure support—an acquaintance with his profession, tact and readiness in applying its resources, and the due fulfillment of every moral and religious obligation. While in other cases I have freely opened the pages of this Journal for the vindication of professional character, when unworthily assailed, I may be pardoned if circumstances compel me to have recourse to the same means in vindication of my own. I desire, however, to avail myself of no undue privilege. The answer of the party implicated, shall have free insertion, no matter what its nature, no matter how complete its repudiation of the act of its author, which, for the honour of the profession, I sincerely hope it may prove.

I will now proceed with the details, and in the first place I will observe, that a difficulty occurring in the settlement of my claim for professional services rendered to Mr. F. when in Montreal, which were, to those who knew their nature and extent, of the most harassing description, and which were very inadequately requited, Mr. F. in a letter to me dated Hamilton, Nov. 12, 1847, stated—" I am happy to inform you that I am and feel much better. My general health is good ; and, were it not for the unfortunate position my legs were placed in in Montreal, I might now, Dr. Mackelcan assures me, have been walking about on crutches. Dr. Mackelcan has discovered that my hinch-bone is considerably injured, and that the small bones of my sacrum are smashed to pieces, which

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facts seem to have escaped your notice." My answer to this communication was, after an authenticated copy of it had been retained, a return of the letter by next post; while, in a note alluding to it addressed to the gentleman in whose house he had resided in Montreal, and dated November 16, I remarked, "That the imputation of *most questionable character* on the professional skill of Drs. MacDonnell, Arnoldi, Nelson, and myself, was to me a matter of less consequence than the id: that one for whom," &c. &c. The original, or a copy of this note, is, I believe, now in possession of Mr. F.'s late partner.*

On the 18th Nov., 1847, I received a private letter from an old and esteemed fellow-student, dated Hamilton Nov. 14. This letter observes—"As there are various reports here respecting your treatment of Mr. F., unfavourable to you, I wish you would give me a history of the case; that is, the nature of the disease, what parts are injured, and how injured, so that I may be enabled to explain to his brother, or any other party interested, the treatment he has received at your hands, should you desire it. I consider it my duty to write to you, as an old friend, in case any thing should eventually transpire that you might require to take notice of." An answer

* The note from which the following is an extract, was put into my hands by Dr. MacDonnell. It was written by the late Mr. F.'s brother, Mr. E. J. F., now in Hamilton, to Dr. MacD. The note is dated Hamilton, Nov. 12, 1847:—

"I am happy to say my brother has been a great deal better for the last ten days, much better than he has been since the accident occurred. His bowels are now in a healthy state. His bladder much better: passes water more freely, in large quantities and not accompanied by spasms; his appetite is very good, and he seems to relish what he eats. There is no doubt his general health has very much improved since he came up here. His limbs are somewhat better: the greatest difficulty seems to be in stretching them, but I think Dr. Mackelcan will overcome that in time, as he has already partially succeeded. I regret to say that Dr. Mackelcan has observed, what seems to have escaped the observation of yourself and Dr. Hall, viz., *that there is a piece of the hinch-bone broken off, and the small bones of the sacrum smashed to pieces*, which I am very much afraid may retard his recovery.—I am, &c.,

E. J. F.

(The italics are the writer's own.—A. H.)

was returned to this, giving substantially the diagnosis of the case as detailed in the early part of this paper, and to which this gentleman has been, since Mr. F.'s decease, requested to give publicity.*

On the 25th March, 1848, in a letter received from a medical friend in Hamilton, I have the following observation—"You were not four hours from Hamilton before he (Dr. Mackelcan) found fault with the legs being drawn up."

Several letters again allude to the fact, that the difficulty experienced in the settlement of my claim for professional services, was due to Dr. Mackelcan's most unprofessional interference in the matter. One letter most explicitly states, "that had it not been for Dr. Mackelcan's interference, your account would have been long ago adjusted."

I have already published Dr. Mackelcan's letter to

* Having written for a copy of this letter, dated Montreal, November 20, 1847, the medical gentleman to whom it was addressed has kindly sent me the original, from which I make the following extracts:—"My opinion, however, frequently expressed to Mr. F. himself, his brother I think, and others of his friends, was, that a fracture did probably exist; but, if any where, then about the lower part of the cervical vertebræ, and this idea based exclusively on the symptoms which prevailed. Paralysis, however, rapidly came on, and continued for a length of time, giving rise to the idea that extravasation had taken place on the cord due to laceration or rupture: certainly there was severe spinal concussion: but, excepting the probability of fracture of the spine, there was no evidence of such a state detectable on the most careful manipulation; and this, too, by three of us (excluding Dr. Arnoldi, who first saw the case with me,) every one of whom were anxiously looking for it. *I need not say that we might have been mistaken*, but this I will say, that it is more likely that we were all right," (and so the event has proved.) In another part of the same letter I remarked that "one of the strongest arguments in favour of the disease being above the 6th dorsal vertebra, and below the origin of the phrenic, is the priapism which he (Mr. F.) had for the three or four weeks subsequent to the accident, and the absence of all derangement of respiration." Again, "I feel perfectly satisfied of the correctness of the opinion which I formed of Mr. F.'s case; and it strikes me that Dr. Mackelcan has placed himself in very equivocal circumstances, if he has originated the rumours, and I can hardly think they could have received any substantiality without the assistance of his *very mobile tongue*."

me dated October 29, and it will be observed that he is silent in it as relates to the detected fracture of the sacrum, injury to the ilium, or other improper treatment, all circumstances of which his duty should have prompted a communication with me, before even hinting them to Mr. F. His end, however, would not have been gained by this too honest act.

I will only hastily observe, that rumours of my alleged mismanagement of this case, based upon Dr. Mackelcan's remarks, had reached me as being current in Toronto, and matter of conversation even in the hotels at Hamilton; while more than one person, even in this city, had addressed me on the subject. Dr. Mackelcan's diagnosis of the case would thus appear to have had most extensive circulation, and this to the prejudice of all who were concerned in the case in this city, but of myself especially. But now, how stands the case?—that Dr. Mackelcan has been most grossly wrong, and that we have been right, almost to the letter—a fact, however, for which I would have taken no credit, in so simple a case as the preceding, had it not been for the circumstances which I have been reviewing. Dr. Mackelcan's critical acumen, however, has travelled widely through this Province, and he has, doubtless, received great credit for detecting, *five months after the receipt of injury, a fracture of the sacrum which never existed.* He must, therefore, pardon me if I aid still further in circulating his brilliant diagnostic tact, and expose him to the admiration of the profession of this continent and Great Britain, as the brilliant surgical luminary which shines in the firmament of Hamilton, and for the possession of which, the inhabitants of that city can scarcely feel themselves sufficiently grateful. When I recall to mind the circumstances which transpired at Hamilton in December 1846, the result of which was, that the Hamilton Gazette, December 31, 1846, contained the public announcement of the profession of Hamilton to decline professional intercourse with Dr. McK., in consequence of unprofessional conduct, I fear much that the practice pursued by Dr. Mackelcan towards his brother practitioners is a systematic one; and the present instance of

like misconduct towards myself will demonstrate, both to him, and to all others who strive to acquire a reputation by the same means, that it is a dangerous one, and liable to recoil upon the aggressor with a tenfold retribution.

Montreal, June 22, 1848.

